

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF NEW MEXICO**

IN RE: SHALE OIL ANTITRUST LITIGATION

Case No. 1:24-md-03119-MLG-LF

This Order Relates to All Cases

**ORDER REGARDING PRODUCTION OF ELECTRONICALLY STORED INFORMATION
AND PAPER DOCUMENTS**

This Order Regarding Production of Electronically Stored Information and Paper Documents (“ESI Protocol”) shall govern the Parties and Non-Parties in all cases that are a part of the above-captioned case, whether they currently are involved or become so in the future; all parties in any of the underlying actions consolidated in the above-captioned case, and any related actions that may later be consolidated with this case (collectively, the “Matter”).

I. GENERAL PROVISIONS

- A. Applicability: This ESI Protocol will govern the production of Electronically Stored Information (“ESI”) and paper documents. To the extent that a Party collected and processed documents prior to the entry of this ESI Protocol in a manner that does not comply with the terms of this ESI Protocol, the Parties shall meet and confer concerning the formats of the production of any such ESI or paper documents. The Requesting Party shall not unreasonably withhold consent to the Producing Party using the prior production format for such documents.
- B. Cooperation: The Parties agree that they will adhere to the principles of cooperation, transparency, reasonableness, and proportionality, as set forth in the Federal Rules of Civil Procedure and as interpreted by federal case law, as they conduct discovery in the Matter.
- C. Limitations & Non-Waiver: Nothing in this ESI Protocol shall be construed to affect the admissibility of discoverable information. Compliance with this ESI Protocol does not constitute a waiver, by any Party, of any objection to the production of particular ESI or paper documents for

any reason, including objections based on privilege, relevance, burden, accessibility or any other objection to discoverability, nor does it constitute a waiver of any right to discovery by any Party.

D. Deadlines: References to schedules and deadlines in this ESI Protocol shall comply with Fed. R. Civ. P. 6 with respect to computing deadlines.

E. Definitions:

1. Plaintiffs and Defendants are referred to as the “Parties” solely for the purposes of this ESI Protocol. A single Plaintiff or Defendant may also be referred to as a “Party” solely for the purposes of this ESI Protocol.
2. “Plaintiffs” as used herein shall mean the Plaintiffs named in any of the operative complaints in the Matter, including any subsequent complaints in the Matter.
3. “Defendants” as used herein shall mean Defendants named in any of the operative complaints in the Matter, including any subsequent complaints in the Matter.
4. “Discovery Material” is defined as all information produced, given, or exchanged by and among all Parties, or received from Non-Parties in the Matter, including all deposition testimony, testimony given at hearings or other proceedings, interrogatory answers, documents, and all other discovery-related materials, whether produced informally or in response to requests for discovery.
5. “ESI” as used herein means “electronically stored information” and shall have the same meaning as defined under the Federal Rules of Civil Procedure.
6. “Metadata” means and refers to data providing information about data, and includes without limitation: (i) information embedded in or associated with a native file that is not ordinarily viewable or printable from the application that generated, edited, or modified such native file which describes the characteristics, origins, usage and/or validity of the electronic file and/or (ii) information generated automatically by the operation of a computer or other

information technology system when a native file is created, modified, transmitted, deleted, or otherwise manipulated by a user of such system.

7. “Producing Party” means any Party or Non-Party that produces Discovery Material in the Matter.
8. “Requesting Party” means any Party or Non-Party that requests Discovery Material in the Matter.
9. To avoid misunderstandings about terms, all Parties should consult the most current edition of The Sedona Conference Glossary.

- F. Authenticity and Admissibility: Nothing in this ESI Protocol shall be construed to affect the authenticity or admissibility of any document or data and related objections based on such issues.
- G. Confidential Information: For the avoidance of doubt, nothing herein shall contradict the Parties’ rights and obligations with respect to any information designated as “Confidential,” “Highly Confidential,” or “Outside Counsel Only” under the Protective Order entered in this Matter.
- H. Preservation: The Parties agree that they shall continue to take reasonable steps to preserve relevant documents and ESI in accordance with their obligations under applicable law. By preserving or producing information for the purpose of this Matter, the Parties are not conceding that such material is discoverable.
- I. Encryption: To maximize the security of information in transit, any media on which documents are produced may be encrypted by the Producing Party. In such cases, the Producing Party shall provide the encryption key or password to the Requesting Party contemporaneously with sending the encrypted media.

II. GENERAL PRODUCTION FORMAT PROTOCOLS

- A. TIFFs: Except for structured data and the items addressed in Section II(C) below, all production images will be provided as a black-and-white, single-page Group IV TIFF of at least 300 DPI

resolution with corresponding multi-page text and necessary load files. Each image will have a file name that is the unique Bates number of that image, pursuant to Section II(F). Original document orientation should be maintained to the extent reasonably practicable and technologically possible for a Producing Party's vendor (i.e., portrait to portrait and landscape to landscape). The imaged Data shall retain all attributes of the native or hard-copy file, such as document breaks. To the extent reasonably practicable, produced TIFF images will show all text and images that are visible in the form in which the electronic document was last saved, with the exception of redacted portions. Hidden content, tracked changes or edits, comments, notes, and other similar information, to the extent viewable within a document in its native file format and visible in the form in which the electronic document was last saved, shall also be imaged so that such content is viewable on the image file. Nothing in this subsection requires the modification or alteration of any document or data to make any hidden content, tracked changes or edits, comments, notes, and other similar information viewable if it is not already viewable in the form in which the electronic document was last saved. Documents that are difficult to render in TIFF because of technical issues, or any other documents that are impracticable to render in TIFF format, may be produced in their native format with a placeholder TIFF image stating "Document Produced Natively," or in the alternative, if applicable, "Exception File Unable to Be Imaged." A Producing Party retains the option to produce ESI in alternative formats if so agreed by the Requesting Party, which may include native format, or a combination of native and TIFF formats. If a Requesting Party maintains that production of a color image is material to interpreting a document, it may request production of a color version of the document pursuant to Section II(K) below.

B. Text Files: Each ESI item produced under this ESI Protocol shall be accompanied by a text file as set out below. All text files shall be provided as a single document level multipage text file for each

item, not one text file per page. Each text file shall be named to use the Bates number of the first page of the corresponding production item.

1. OCR: A Producing Party may make paper documents available for inspection and copying/scanning in accordance with Fed. R. Civ. P. 34 or, alternatively, scan and OCR paper documents. Thus, the text file for each hard copy document may be generated by applying OCR technology to the scanned image of the document. Where OCR is used, the Parties will endeavor to generate accurate OCR and will utilize OCR processes and technology of sufficient quality to enable the generation of utilizable text files. OCR text files should indicate page breaks where possible. Even if OCR is used by a Producing Party, however, the Parties acknowledge that, due to poor quality of the originals, not all documents lend themselves to the generation of accurate OCR.
2. ESI: Except for redacted documents, emails and other ESI will be accompanied by extracted text taken from the electronic file itself, where available. To the extent that is not feasible, the text for the ESI item may be generated by applying OCR to the native file under the preceding provision.
3. Redacted documents: For redacted documents, the Parties shall provide the full text for the portions of the ESI that are not redacted. Alternatively, the Parties may provide the text file generated after applying OCR to the redacted TIFF file under Section II(B)(1).

C. Production of Native Items: The Parties agree that ESI shall be produced as TIFF images consistent with the format described in Section II(A) with an accompanying load file, which will contain, among other data points, the ESI data points listed in Appendix 1 hereto. The following, however, shall be produced in native format: spreadsheet-application files (e.g., MS Excel), presentation files (e.g., MS PowerPoint), personal databases (e.g., MS Access), and multimedia audio/visual files such as voice and video recordings (e.g., .wav, .mpeg, .mp3, .mp4, and .avi), and any non-standard file

types that are not easily rendered to image. In the case of personal database (e.g., MS Access) files containing confidential or privileged information, the Parties may meet and confer to determine the appropriate form of production. When producing the above file types in native format, the Producing Party shall produce a placeholder TIFF image stating “Document Produced Natively” or, in the alternative, if applicable, “Exception File Unable to Be Imaged” as described in Section II(A). Each TIFF placeholder will contain the endorsed Bates number and endorsed confidentiality designation, if required. For materials natively produced in electronic format, the endorsed Bates number should also be indicated in the filename of the electronic file. The filename must retain the file extension corresponding to the original native format; for example, an Excel 2003 spreadsheet’s extension must be .xls. The corresponding load file shall include NativeFileLink information for each native file that is produced. The Parties agree to meet and confer to the extent that there is data in database application files, such as SQL and SAP, to determine a reasonable form of production of usable data. Through the pendency of the Matter, the Producing Party shall exercise reasonable, good faith efforts to maintain all preserved and produced native files in a manner that does not materially alter or modify the file or the metadata. SMS, text, or other internet or mobile application messages (e.g., iMessage, Slack, Jabber, and WhatsApp) are governed by Section II(D).

D. SMS, text, or other internet or mobile application messages: If a Party is producing a SMS, internet-based message or instant message conversation (including but not limited to messages from platforms such as iMessage, Slack, Jabber, Teams, and WhatsApp), responsive, non-privileged messages should be produced in an aggregated format in order to preserve the integrity of the threads of communication reflected in the messages, such that sufficient context for the responsive portion of the message thread is produced. Such threads shall be produced in a manner that includes all messages for at least a 24-hour period, with time stamps for each individual message, recipient and sender information. If practicable, the threads shall be produced in a manner that includes any

transmitted attachments, emojis, embedded images or other media files. The Producing Party may, in good faith, redact:

- a) non-responsive, purely personal, messages; and/or
- b) non-responsive messages containing extremely sensitive and/or current confidential business information, the disclosure of which would create a substantial risk of serious competitive harm,

provided that such redacted messages:

- c) are not exchanged with an individual(s) who works for one of the Defendants (or its affiliates) other than the custodian's employer; and
- d) do not provide context for the responsive messages.

If such a redaction is applied, the document must be identified: a) on its face with "Redacted – Personal Data" and/or "Redacted – Extremely Sensitive Confidential Non-Responsive Information," as appropriate; and b) in the metadata with a redaction (Y/N) flag. The Producing Party will provide information substantiating the basis for the redactions upon reasonable request from the Receiving Party, and should the Receiving Party still dispute the redactions, they may move the Court for relief.

E. Requests for Other Native Files: Other than as specifically set forth above, a Producing Party need not produce documents in native format. If a Party would like a particular document produced in native format and this ESI Protocol does not require the production of that document in its native format, the Party making such a request shall explain the reason for its request that the document be produced in its native format. The Party seeking the native production will provide a specific Bates range for documents it wishes to be produced in native format. Requests that a document be produced in native format under this Section II(E) will not be unreasonably denied by the Producing Party. Any native files that are produced should be produced with a link in the NativeLink field, along with all extracted text and applicable metadata fields set forth in Appendix 1.

F. Bates Numbering:

1. All images must be assigned a Bates number that: (a) is unique ; (b) maintains a constant prefix and length (at least seven numeric digits and 0-padded) across the entire production; (c) contains only alphanumeric characters, no special characters or embedded spaces; (d) is sequential within a given document; and (e) identifies the Producing Party. To the extent reasonably practicable, the Bates number must also maintain consistent numbering across a family of documents.
2. If a Bates number or set of Bates numbers is skipped in a production, the Producing Party will so note in a cover letter or production log accompanying the production.
3. Producing Parties will brand all TIFF images at a location that does not obliterate or obscure any part of the underlying images.
4. A Producing Party shall use a unique Bates prefix for structured data productions.

G. Parent-Child Relationships: Parent-child relationships (the association between an attachment and its parent document) that have been maintained in the ordinary course of business should be preserved to the extent reasonably practicable.

1. The child-document(s) should be consecutively produced immediately after the parent-document. Each document shall be produced with the production number for the first and last page of that document in the “BegBates” and “EndBates” fields of the data load file and with the “BegAttach” and “EndAttach” fields listing the production number for the first and last page in the document family.

H. Entire Document Families: Subject to Sections II(M)(1)-(2) below, entire Document families must be produced, even if only the parent email or an attachment to an email is responsive, excepting (1) junk files and non-user-created content routinely excluded during processing (provided that such routine processing-generated exclusions are disclosed to the Requesting Party so that the Parties

may meet and confer regarding their application if necessary), and (2) documents that are withheld on the basis of privilege and in compliance with the Parties' stipulation or the Court's order on such assertions of privilege. Where a document is fully withheld from an otherwise produced family on the basis of privilege, the Producing Party shall produce a single-page TIFF slip sheet indicating that the document was withheld. The corresponding load file record for such a document only needs to provide information for the following fields: BegBates, EndBates, BegAttach, EndAttach, and Withheld Placeholder and Privilege Asserted. For the avoidance of doubt, nothing in this ESI Protocol shall prohibit a Party from seeking a protective order under Federal Rule of Civil Procedure 26(c) to produce less than an entire family, redact non-responsive portions of documents or obtain other appropriate relief.

- I. Load Files: All production items will be provided with a delimited data file or "load file," which will include both an image cross-reference load file (such as an Opticon file), as well as a metadata (.dat) file with the document-level metadata fields identified in Appendix 1 below (to the extent available). The load file must reference each TIFF in the corresponding production. The total number of documents referenced in a production's data load file should match the total number of designated document breaks in the image load files in the production.
- J. Foreign Language Documents: To the extent that documents or ESI are produced that contain languages other than English, in whole or in part, the Producing Party shall produce all foreign language documents and ESI in the original language. The Producing Party has no obligation to provide a translation of the documents or ESI or any portion thereof.
- K. Color: Documents or ESI containing color need not be produced initially in color. But if an original document or ESI item contains color markings and it is necessary to see those markings in their original color to understand the meaning or content of the document, then the Requesting Party may, in good faith, request that the document or ESI item be produced in its original colors. For such

documents, the Requesting Party shall provide a list of Bates numbers of the imaged documents sought to be produced in color. Requests that a document be produced in color for the reasons set forth in this Section II(K) will not be unreasonably denied by the Producing Party. If a Producing Party wishes to object, it may do so by responding in writing and setting forth its objection(s) to the production of the requested document in color. Color documents shall be produced in .jpg format provided doing so does not degrade the readability of the document.

L. Confidentiality Designations: If a particular paper document or ESI is designated as Confidential, Highly Confidential, or Outside Counsel Only pursuant to the Protective Order in this Matter, the designation shall be branded on the document's image at a location that does not obliterate or obscure any part of the underlying images. This designation also should be included in the appropriate data field in the load file. For documents produced in native format with image placeholders, the placeholder image for the native file should be branded with the appropriate confidentiality designation to the extent possible. Requesting Parties shall ensure that the confidentiality claim follows the document regardless of whether the designation imprints on the file when viewed in printed form. Failure to comply with the procedures set forth in this ESI Protocol, any protective order or confidential order, or any confidential stipulation shall not waive any protection or confidential treatment.

M. Redactions:

1. Personal Data Redactions: Except for structured data and redactions permitted pursuant to Section II(D), a Producing Party may redact personal information to the extent that the information falls within one of the following categories:
 - a) the information relates to medical or health issues of an individual; or
 - b) social security numbers, financial-account numbers or bank account information, taxpayer-identification numbers, driver's license numbers, birthdates, passport

numbers, names of minor children, credit card information, or personal passcodes.

Such redactions should be identified as “Redacted – Personal Data” on the face of the document.

2. No “relevancy” redactions: A Producing Party may not make redactions based on an assertion the information is not relevant unless it has obtained a protective order allowing such redactions under Federal Rule of Civil Procedure 26(c). The only redactions permitted without obtaining a protective order are for privilege, the two specific categories of privacy information listed immediately above, and redactions allowed under Section II(D).
3. Documents Redacted for Privilege: Redacted documents need not be logged as long as (a) for emails, the objective metadata specified in Section VII(E)(a) below (e.g., to, from, cc, bcc, recipients, date, and time, unless the privilege or protected information is disclosed in these fields) is not redacted, and the reason for the redaction (i.e., the nature/basis of the privilege asserted) is noted on the face of the document (if noting the nature/basis of the privilege on the face of the document is not technologically feasible, it can be noted in the Privilege Asserted metadata field); provided, however, that for redacted documents where the subject matter is not decipherable as a result of redactions, a description of the contents of the document sufficient to understand the subject matter of the document may be requested; and (b) for non-email documents, the reason for the redaction is noted on the face of the document in the redacted area (alternatively, if noting the nature/basis on the face of the document is not technically feasible, the privilege basis can be noted in the Privilege Asserted metadata field). The Producing Party will undertake reasonable efforts to make limited, line-by-line redactions of privileged or work product information. The Producing Party shall produce the remainder of the non-redacted portions of the document. After receipt of the production, the Requesting Party may request in good faith (and when necessary to

reasonably assess any claim of privilege) that the Producing Party create a privilege log for a targeted set of redacted documents. The metadata produced with a redacted document must clearly indicate that it is subject to redactions per Appendix 1. Subject to the terms of the Protective Order entered by the Court, the Producing Party's failure to withhold privileged or protected OCR text and/or metadata for a redacted Document shall not be deemed a waiver of the asserted privilege or other asserted protection associated with that Document, and any metadata or text file containing the text of redacted portions of a redacted Document or other privileged or protected information shall be treated as inadvertently produced.

N. Production Media & Protocol: A Producing Party may produce documents via readily accessible computer or electronic media or external hard drive (with standard PC compatible interface) (“Production Media”), or via a secure file-sharing service, including any network-based secure file transfer mechanism or SFTP. A Producing Party shall work in good faith to resolve any technical issues with the electronic production method used for a particular production that a Requesting Party may have. Each piece of Production Media will be assigned a production number or other unique identifying label corresponding to the date of the production of documents on the Production Media, as well as the sequence of the material in that production. For example, if the production comprises document images on three external drives, the Producing Party may label each drive in the following manner: “[PARTY] Production January 1, 2024-001,” “[PARTY] Production January 1, 2024-002,” and “[PARTY] Production January 1, 2024-003.” Where the Production Media used is an external hard drive (with standard PC compatible interface) or USB drive, such production media must be sent no slower than overnight delivery via FedEx, UPS, or USPS. Each item of Production Media (or in the case of productions made via FTP link, each production transmittal letter) shall include: (1) text referencing that it was produced in the Matter, (2) the production date, and (3) the Bates number range of the materials contained on such production media item. Any replacement

Production Media will cross-reference the original Production Media and clearly identify that it is a replacement and cross-reference the Bates number range that is being replaced. The Parties shall designate the appropriate physical address for productions that are produced on Production Media. Each production should include a transmittal letter that includes (1) the production date, (2) the production volume, (3) the Bates range and number of documents included in the production and (4) the applicable confidentiality designation(s).

O. Resolution of Production Issues: Documents that cannot be read because of imaging or formatting problems shall be identified by the Requesting Party to the Producing Party promptly after the Requesting Party's discovery of the issue. The Producing Party and the Requesting Party shall meet and confer to attempt to resolve problem(s), to the extent the problem(s) are within the Parties' control. Regardless of how produced, a Producing Party shall provide clear instructions for accessing the production, including any necessary passwords or encryption keys.

III. PAPER DOCUMENT PRODUCTION PROTOCOLS

A. Scanning: A Producing Party shall scan and OCR any paper documents. Where OCR is used, the Parties agree that the following Sections III(B)-(C) shall apply.

B. Coding Fields: The following information shall be produced in the load file accompanying production of paper documents: (a) BegBates, (b) EndBates, (c) BegAttach, (d) EndAttach, (e) Custodian, (f) Confidentiality, (g) Pages, and (h) an indication as to whether a redaction is present. Additionally, all paper documents will be produced with a coding field named "Paper Document" marked with a "Y" or otherwise indicate that the document originated in paper, and such indication shall be explained to the Requesting Party.

C. Unitization of Paper Documents: Paper documents should be logically unitized for production to the extent reasonably practicable. Generally, when scanning paper documents for production, distinct

documents shall not be merged into a single record and single documents shall not be split into multiple records. The Parties will make reasonable efforts to unitize documents correctly.

1. Relationship: The relationship among the documents in a folder or other grouping should be reflected in proper coding of the beginning and ending document and attachment fields to the extent reasonably practicable.
2. Identification: Where a document, or a document group—such as folder, clipped bundle, or binder—has an identification spine or other label, the information on the label shall be scanned and produced as the first page of the document or grouping.
3. Fixed Notes: Paper Documents that contain fixed notes shall be scanned with the notes affixed, if it can be done so in a manner so as not to obstruct other content on the document. If the content of the Document is obscured by the affixed notes, the Document and note shall be scanned separately, and produced in a way that makes clear which page the note was affixed to.
4. Custodian Identification: The Parties will utilize best efforts to ensure that paper records for a particular Document custodian are produced in consecutive stamp order.

IV. ESI METADATA FORMAT AND PROCESSING ISSUES

- A. System Files: ESI productions may be de-NISTed using the industry standard list of such files maintained in the National Software Reference Library by the National Institute of Standards & Technology as it exists at the time of de-NISTing. Other file types may be added to the list of excluded files if they clearly do not have user-created content and by agreement of the Parties.
- B. Metadata Fields and Processing:
 1. Date and Time: No Party shall modify the date or time as contained in any original ESI.
 2. Time Zone: To the extent reasonably practicable, each party shall process ESI items using a consistent time zone both in the metadata and on the image of the document across all

document custodians. For the avoidance of doubt, ESI items that have already been previously processed in a different time zone need not be reprocessed, though the time zone previously used shall be reflected in the metadata. Each Producing Party will provide notice to the Receiving Party of the time zone used in their produced metadata.

3. Auto Date/Time Stamps: To the extent reasonably practicable, ESI items shall be processed so as to preserve the date/time shown in the document as it was last saved, not the date of collection or processing.
4. Metadata Fields: Except as otherwise set forth in this ESI Protocol, ESI files shall be produced with at least each of the data fields set forth in Appendix 1 that are available and can reasonably be extracted from a document. The Parties are not obligated to manually populate any of the fields in Appendix 1 if such fields cannot reasonably be extracted from the document using an automated process, with the exception of the following fields: (a) BegBates, (b) EndBates, (c) BegAttach, (d) EndAttach, (e) Custodian/Custodians All/Other, (f) Confidentiality, (g) Redacted (Y/N), and (h) NativeLink fields (only for documents produced natively), which should be delivered regardless of whether the fields can be populated pursuant to an automated process. After the Parties have disclosed their proposed custodial and non-custodial sources (see ECF No. 82 at 2), they will meet and confer regarding additional metadata fields that shall be produced with ESI files relating to cell phones, instant-messages, phone records, video conferencing and collaboration software, and other forms of ESI not directly addressed in Appendix 1. The mere fact that such a metadata field was not included originally in this ESI Protocol shall not be a reason to refuse its inclusion at that time.

C. Redaction:

1. The Parties agree that, where ESI items need to be produced according to Appendix 1 and also must be redacted, they shall be produced solely in TIFF format with each redaction clearly indicated, except in the case of personal database files (e.g., MS Access), which shall be governed by Section II(C). The Producing Party must also produce a text file of such documents. Any metadata fields reasonably available and unnecessary to protect the privilege protected by the redaction, including but not limited to the metadata fields listed in the Appendix, shall be provided. The Parties understand that for certain MS Excel documents or other file types or files, TIFF redactions may be impracticable. These documents may be redacted in native format.
2. If the items redacted and partially withheld from production are Excel-type spreadsheets as addressed in Section II(C), and the native items are also withheld, to the extent reasonably practicable, each entire ESI item must be produced in TIFF format, including all unprivileged pages, hidden fields, and other information that does not print when opened as last saved by the custodian or end-user to the extent this content can be reasonably extracted from the file and/or imaged. For PowerPoint-type presentation decks, this shall include, but is not limited to, any speaker notes. For Excel-type spreadsheets, this shall include, but is not limited to, hidden rows and columns, all cell values, annotations, and notes. The Producing Party shall also make reasonable efforts to ensure that any spreadsheets produced only as TIFF images are formatted so as to be legible.
3. If the items redacted and partially withheld from production are audio/visual files, the Producing Party shall, to the extent reasonably practicable, provide the unredacted portions of the content. If the content is a voice recording, the Parties shall meet and confer to discuss the appropriate manner for the Producing Party to produce the unredacted portion of the content.

D. Email Collection and Processing:

1. Email Threading: Each responsive email in a thread (along with any responsive attachments) must be produced separately.
2. Email Domains: Producing Parties may utilize an ESI search process to identify categories of documents, such as emails from domains typically associated with junk email like fantasy football-related emails, retailer advertising, and newsletters or alerts from non-industry sources. To the extent a Party opts to exclude uniquely identifiable email domain names (e.g., emails from domains typically associated with junk or irrelevant topics like sports, fantasy team competitions, retailer advertising, and newsletters or alerts from non-industry sources) as part of its initial filter of potentially responsive documents, the Parties agree to disclose domain names excluded under this paragraph.

E. De-duplication: A Producing Party may de-duplicate any file globally (i.e., across Document Custodians) at the “family” level (i.e., families should not be broken due to de-duplication). The Producing Party will make a reasonable effort to identify all agreed-upon or ordered custodians who were in possession of any de-duplicated documents through an appropriate load file field such as DuplicateCustodian or CustodianAll/Other (as noted in the Appendix). Additionally, all BCC recipients whose names would have been included in the BCC metadata field, to the extent such metadata exists, but are excluded because of horizontal/global de-duplication, must be identified in the BCC metadata field specified in Appendix 1 to the extent such metadata exists and can be reasonably extracted by a Producing Party’s processing engine/vendor. In the event of rolling productions of documents or ESI items, the Producing Party will, as needed, supplement the load files with updated duplicate custodian information, as well as BCC information to the extent such metadata exists. Duplicate custodian information may be provided by a metadata “overlay” and will

be provided by a Producing Party no later than seven days after that Party has substantially completed its production of ESI.

1. Duplicate electronic documents shall be identified by utilizing the industry-standard process of comparison of auto-generated hash values (e.g., MD5 or SHA-1). All electronic documents bearing an identical value will be considered duplicative. The Producing Party shall use reasonable efforts to produce only one document image or native file for duplicate ESI documents within the duplicate group to the extent practicable. The Producing Party is not obligated to extract, review, or produce entirely duplicate ESI documents. Any other methodology for identification of duplicates, including email field selection for hash value creation, must be discussed with the Requesting Party and approved in writing before implementation. The Requesting Party will not unreasonably withhold approval.
2. Duplicate emails shall be identified by utilizing the industry-standard process of comparison of auto-generated hash values (e.g., MD5 hash values) for the email family, which shall include the parent email and all attachments. Duplicate identification will be identified at a family level, including message and all attachments. Email families bearing an identical value are considered a duplicate group. The Producing Party shall use reasonable efforts to produce only one document image or native file for duplicate emails within the duplicate group to the extent practicable.

F. Zero-byte Files: The Parties may, but are not required to, filter out stand-alone files identified as zero-bytes in size that do not contain responsive file links or file names. If the Requesting Party in good faith believes that a zero-byte file was withheld from production and contains information responsive to a request for production, the Requesting Party may request that the Producing Party produce the zero-byte file. The Requesting Party may provide a Bates number to the Producing Party

of any document that suggests a zero-byte file was withheld from production and contains information responsive to a request for production.

G. Microsoft “Auto” Feature: To the extent reasonably practicable and technologically possible for a Producing Party’s vendor, Microsoft Excel (.xls) and Microsoft PowerPoint (.ppt) documents should be analyzed for the “auto” features, where documents have an automatically updated date and time in the document, file names, file paths, or similar information that when processed would be inaccurate for how the document was used in the ordinary course of business. If “auto date,” “auto file name,” “auto file path,” or similar features are identified, the produced document shall be identified in a load file, metadata field, or otherwise as having these features (e.g., branded with the words “Auto Date,” “Auto File Name,” or “Auto File Path”).

H. Hidden Text: ESI items shall be processed, to the extent practicable, in a manner that preserves hidden columns or rows, hidden text, worksheets, speaker notes, tracked changes, and comments.

I. Embedded Objects: Microsoft Excel spreadsheets (.xls) embedded in Microsoft Word documents will be extracted as separate documents and treated as attachments to the document. The Parties agree that other embedded objects, including, but not limited to, logos, icons, emoticons, and footers, may be culled from a document set and need not be produced as separate documents by a Producing Party (e.g., such embedded objects will be produced within the document itself, rather than as separate attachments). Notwithstanding the foregoing, documents that have already been previously processed need not be reprocessed to comply with this Section IV(I).

J. Hyperlinked Files: The Parties shall disclose, prior to any future collection of documents, whether they regularly use embedded hyperlinks in documents and emails, such as links to files hosted on platforms such as Google’s G Suite (e.g., links to Google Documents, Microsoft 365 (e.g., links from One Drive, SharePoint, Teams)), etc. The Parties shall undertake reasonable and proportional efforts to collect and produce any such responsive and non-privileged hyperlinked files that are links

in responsive and non-privileged documents and emails, and timely disclose any known systemic issues with the ability to produce linked attachments. To the extent reasonably practicable and can be done without undue burden or expense and in an automated fashion without the need to manually recreate relationships, responsive and non-privilege documents extracted from links shall be populated with the BEGATTACH and ENDATTACH metadata fields to show the family relationship. If documents cannot be extracted from links at the time of collection, the Parties agree to promptly meet and confer in good faith to discuss alternative reasonable and proportional methods of collection and production of responsive and not privileged content.

- K. Compressed Files: Compression file types (i.e., .CAB, .GZ, .TAR, .Z, and .ZIP) shall be decompressed and extracted in a reiterative manner to ensure that a zip within a zip is decompressed into the lowest possible compression resulting in individual folders and/or files.
- L. Password-Protected, Encrypted, or Proprietary-Software Files: With respect to any ESI items within the scope of review that are password-protected or encrypted, the Producing Party will take reasonable steps to obtain identified passwords and remove such protection so that the documents can be reviewed and produced if appropriate. ESI that is likely to contain responsive information that cannot be reviewed because proprietary software is necessary to view the ESI will be disclosed to a Requesting Party, and the Parties shall meet and confer regarding the next steps, if any, with respect to such ESI.

V. DOCUMENT SOURCE SCOPE AND DISCLOSURE PARAMETERS

- A. Time Period: The Parties agree that they will be able to limit the processing of discoverable information to that which was created, modified, sent, or received during a particular time period for unstructured data (email, loose ESI, etc.). The Parties will also agree on a time period for production of structured data. But if the Parties cannot agree on what those time periods will be, they will consequently raise that issue with the Court.

B. Document Source Negotiations:

1. Initial Document Custodians and Sources: Subject to the terms of the Court's Scheduling Order, each Party will provide a list of proposed document custodians and non-custodial document sources (e.g., centralized document sources other than an individual document custodian's files) reflecting those employees or sources with information and/or documents responsive to an agreed-upon or Court-ordered scope of Rule 34 Requests.
2. Additional Document Custodians or Sources: If, after the Parties identify initial document custodians, a Requesting Party believes in good faith that additional document custodians or sources should be added, then the Requesting Party shall, subject to the terms of the Court's Scheduling Order, advise the Producing Party in writing of the proposed additional document custodians or sources and the basis for the request. If the Parties have not agreed on whether to add the document custodian or source within 30 days of the Requesting Party's request (or such shorter time that is provided by the Court's Scheduling Order), then the matter may be brought to the Court. The Parties shall comply with any and all individual rules and preferences for handling discovery disputes of the Article III and/or Magistrate Judge presiding over this Matter.
3. The Parties' discussion of proposed document custodians or sources does not preclude a Party from requesting additional search terms, document custodians, or sources pursuant to the terms of this ESI Protocol; nor does it preclude a Party from objecting to any such additional requests.

VI. PARAMETERS FOR CULLING OF PAPER AND ESI DOCUMENTS

A. Pre-Search Deduplication & Culling of Collected Data:

1. De-Duplication: Before running either of the Search Processes below in Section VI(B), data should be de-duplicated by hash value across all agreed on Court-ordered document custodians.
2. Paper Documents: The Parties agree to meet and confer to determine whether paper documents scanned to electronic form for litigation may be included in any keyword or TAR process.
3. Targeted Collections: Only documents that a Producing Party intends to subject to electronic searching parameters should be included in the data set against which search terms are tested.
4. Exception Reporting: For any documents not otherwise identified as system or operating files that are reasonably likely to contain relevant information (based on available metadata and extrinsic information), and are not otherwise covered by this ESI Protocol (e.g., Section IV(K)), the Producing Party must disclose processing exceptions that are unresolved no later than seven days after the time set for substantial completion of document productions.

B. Search Methodology Parameters: The following Technology Assisted Review (“TAR”), Continuous Active Learning review (“CAL”), and Keyword Search processes govern how collected data may be electronically culled in this matter.

1. TAR/CAL Search Process:
 - a. Producing Party TAR/CAL Disclosures:
 - i. TAR/CAL Disclosures: On a date as agreed by the Parties or ordered by the Court, a Producing Party that elects to use TAR/CAL or similar alternative technology (e.g., AI assisted review) (a “TAR/CAL process”) to cull or otherwise limit the volume of unstructured ESI subject to linear review will disclose the following information regarding its use of a TAR/CAL process:
 - (a) the name of the TAR/CAL software and vendor, (b) a description of how

the Producing Party's TAR/CAL process will work, including how it will train the algorithm, such as using exemplars, keyword search strings, or some other method, (c) a description of the categories or sources of the documents included or excluded from the TAR/CAL process (e.g. excel spreadsheets and paper documents), (d) what quality control and assurance measures will be taken to ensure a reasonable production consistent with the requirements of Federal Rule of Civil Procedure 26(g) (e.g., validation processes); (e) if the Producing Party intends to cull or otherwise limit such volume of documents subject to by additional means, such as by applying search terms, and (f) if the Party intends to pre-cull using search terms, identify those search terms per Section VI(B)(2).

b. Requesting Party Response:

i. After receiving a Producing Party's TAR/CAL Disclosures, the Requesting Party may raise with the Producing Party any concerns with the proposed TAR/CAL process or categories of documents that it proposes should be excluded from the TAR/CAL process. A Requesting Party may also propose any exemplars it proposes be used to train a TAR/CAL tool or narrow keyword search strings it proposes be used to generate exemplars to train a TAR/CAL tool. A Producing Party retains the right to reject and oppose any such requests, subject to resolution by the Court.

c. Cooperation: The Parties agree to meet and confer regarding any differences that they may have over the Producing Party's use of TAR/CAL and its processes, recall and any validation proposals. If an agreement cannot be timely reached, then the Parties agree to raise this issue with the Court.

2. Keyword Search Process:

- a. Iterative Process: Developing efficient keyword search terms is an iterative process and will require transparent and cooperative efforts by both the Producing Party and Requesting Party. The Producing Party and the Requesting Party will work together in good faith to reasonably narrow the number of documents returned via search term hits and narrow the number of irrelevant documents captured as a result of the search terms. To the extent any disputes remain concerning the sufficiency of the Producing Party's information in support of its objections and/or the use of specific search terms after good faith negotiations have occurred, either Party may request the assistance of the Court in resolving such disputes.
- b. Search Software Disclosures: On a date as agreed by the Parties or ordered by the Court, the Producing Party will disclose any search software they have decided to use (including version number) and that software's default stop/noise words and search language syntax.
- c. First Phase Search Term Proposals:
 - i. *Producing Party Proposes an Initial Set of Search Terms:* The Producing Party will propose a set of search terms. Where a Producing Party seeks to exclude false positives (aka, "noise hits") by modifying or excluding certain keywords, then it will supply contextual examples of such false positives to explain why they must be excluded.
 - ii. *Requesting Party's Proposed Revisions:* After receiving the initial proposed search terms, the Requesting Party will provide any proposed revisions or additions to the Producing Party's search terms.

iii. *Producing Party Provides Information Sufficient to Support Its Objections:*

After receipt of the Requesting Party's proposed revisions, the Producing Party will provide information sufficient to support its objections to specific search terms.

d. Second Phase Search Term Proposals:

i. *Requesting Party Proposes an Additional Set of Search Terms:* The Parties agree that Plaintiffs collectively and Defendants collectively may propose additional search terms to a Producing Party one time. By 100 days before the deadline for substantial completion of document productions or otherwise ordered by the Court, the Requesting Party may propose a set of additional search terms. The Requesting Party will explain the basis for the additional requested terms, which could include, for example, identifying by Bates number exemplar documents that support the request.

ii. *Producing Party Provides Information Sufficient to Support Its Objections:* After the Requesting Party provides an additional set of proposed search terms, the Producing Party will provide information sufficient to support its objections to specific additional search terms.

iii. *Requesting Party and Producing Party Will Meet and Confer Regarding Requesting Party's Proposed Additional Search Terms:* After the Requesting Party proposes an additional set of search terms, the Parties will meet and confer regarding any disputes or counter-proposals regarding the additional search terms. To the extent any disputes remain concerning the sufficiency of the Producing Party's information in support of its objections and/or the use of specific additional search terms after good faith negotiations have

occurred, either Party may request the assistance of the Court in resolving such disputes.

3. Additional Searching: Except by agreement of the Parties or by order of the Court, a Producing Party is not required to add search terms after completion of the above phases. A Producing Party also need not conduct any additional review of information subjected to, but not retrieved by, a TAR/CAL tool as part of the identification of the subset of information that will be subject to review and production, nor will a Producing Party be required to re-review any documents as part of the “Second Phase Search Term Proposals” workflow section above that were previously reviewed.
4. Use of Technology Assisted Review or Other Advanced Technology-Based Analytics to Assist Linear Review: A Party may use TAR, CAL, or similar alternative technology to sort documents for linear review without disclosure of that use.

C. Custodial Cellphone & Personal Communications Data, and Social Media Data:

1. At a date to be agreed by the Parties or ordered by the Court, the Parties will exchange disclosures detailing, based on a reasonable inquiry, whether their respective custodians used cell phones, messaging platforms and/or programs, and/or social media for substantive work purposes and/or to communicate with employees of other oil producers, and if so, whether such ESI is in the “possession, custody, or control” (as defined under the Federal Rules and case law) of the Producing Party. The Parties shall then meet and confer regarding the search methodology and production formats to be applied for such sources of ESI within each Party’s possession, custody, or control (whether located on device or in a physical or cloud storage), to the extent not previously agreed.
2. Enterprise messaging and other communication tools: On a date agreed by the Parties or ordered by the Court, the Parties will disclose at the outset any use of enterprise messaging

tools (e.g., Slack, MS Teams, Zoom, WhatsApp, Sametime, Skype, Telegram. etc.), including the type of subscription and retention settings in place. The Parties will meet and confer regarding issues relating to the parameters for an inclusive collection of such data, the format of the production, and other unique issues to this type of data.

VII. CLAIMS OF PRIVILEGE AND REDACTIONS

- A. The Parties agree that they need not produce the text of litigation hold or retention instructions issued in this Matter.
- B. Production of Privilege Logs: Except as provided otherwise below, for any document withheld in its entirety, the Producing Party will produce privilege/redaction logs in MS Excel format or any other format that permits electronic sorting and searching.
- C. Inadvertent Production of Documents: Inadvertent disclosure of documents the Producing Party considers privileged or confidential shall be addressed through the Stipulated Protective Order entered in this case.
- D. Exclusions from Logging Potentially Privileged Documents: The following categories of documents do not need to be contained on a Producing Party's privilege log, unless good cause exists to require that the Producing Party do so.
 - 1. Information generated before the beginning of the relevant discovery period agreed to by the Parties or ordered by the Court. While reserving all rights with respect to the relevant time period for discovery, the Parties agree that information generated after January 12, 2024 also need not be logged. This provision does not apply to Non-Parties to the Matter.
 - 2. Any communications exclusively between a Producing Party and its outside counsel, any non-testifying experts in connection with specific litigation, or, with respect to information protected by Federal Rule of Civil Procedure 26(b)(4), testifying experts in connection with this Matter.

3. Any privileged materials or work product created by a Party's outside counsel, any non-testifying experts in connection with specific litigation, or, with respect to information protected by Federal Rule of Civil Procedure 26(b)(4), testifying experts in connection with this Matter.

E. Privilege Log Requirements:

1. Privilege Log: To the extent applicable, each Party's privilege log only needs to provide objective metadata (to the extent it is reasonably available and does not reflect privileged or protected information), a description of the privilege or protection being asserted, and identification of the attorney(s) associated with the document, consistent with Fed. R. Civ. P. 26(b)(5).

a. Objective metadata includes the following (as applicable to the document types as shown in Appendix 1):

- i. A unique privilege log identifier
- ii. A family relationship identifier
- iii. Custodian
- iv. CustodianOther or CustodianAll (if applicable)
- v. Subject/File Name
- vi. Email Subject
- vii. Author
- viii. From
- ix. To
- x. CC
- xi. BCC
- xii. Date Sent

xiii. Date Received

xiv. Date Created

- b. In addition to the objective metadata fields, and as noted in Section VII(E)(1) above, a Party must also indicate which privilege or protection is being asserted, include a field on its privilege log entitled “Attorney/Description of Privileged Material” that contains a brief description of the privileged or protected material in accordance with the Producing Party’s obligations under Fed. R. Civ. P. 26(b)(5), and identify which persons associated with the document (i.e., senders, recipients, or authors) are attorneys. Further, for any document withheld for which there is no objective metadata, a Party must manually populate on its privilege log an author and date, unless such information is not reasonably discernable from the document or the information is not necessary to evaluate the claim of privilege in light of the metadata that is discernable and/or the information provided in the Attorney/Description of Privileged Material field.
 - c. With respect to the “Email Subject” or “File Name” field, the Producing Party may substitute a description of the document where the contents of these fields may reveal privileged information. In the privilege log(s), the Producing Party shall identify each instance in which it has modified the content of the “Email Subject” or “File Name” field.
2. Email Chains: If there is more than one branch of (i.e., more than one unique group of recipients of) an email thread, each branch will be individually logged; but each individual email within the thread need not be logged if the recipients of the email chain are all identical or if a Party has elected to use threading for review of emails.

F. Challenges to Privilege Claims: Following the receipt of a privilege/redaction log, a Requesting Party may identify, in writing (by Bates/unique identification number), the particular documents that it believes require further explanation. The Producing Party shall endeavor to respond to such a request within 21 days. If a Party challenges a request for further information, the Parties shall meet and confer to try to reach a mutually agreeable solution. If they cannot agree, the matter may be brought to the Court.

G. Attorney's Ethical Responsibilities: Nothing in this order overrides any attorney's ethical responsibilities to refrain from examining or disclosing materials that the attorney knows or reasonably should know to be privileged and to inform the Disclosing Party that such materials have been produced.

VIII. NON-PARTY DOCUMENTS

A Party that issues to a non-Party a subpoena ("Issuing Party" and "Non-Party," respectively) shall include a copy of this Order with the subpoena and advise that Non-Parties should produce documents in accordance with the specifications set forth herein. The Issuing Party shall produce any documents obtained pursuant to a Non-Party subpoena to the opposing Party. Nothing in this Order is intended or may be interpreted to narrow, expand, or otherwise affect the rights of the Parties or Non-Parties to object to a subpoena.

IX. MISCELLANEOUS PROVISIONS

A. Objections Preserved: Nothing in this ESI Protocol shall be interpreted to require disclosure of information protected by the attorney-client privilege, work product doctrine, or any other applicable privilege or immunity. Except as provided expressly herein, the Parties do not waive by virtue of this ESI Protocol any objections as to the production, discoverability, admissibility, or confidentiality of documents and ESI.

B. Inaccessible ESI: If a Producing Party asserts that certain categories of ESI that are reasonably likely to contain responsive information are inaccessible or otherwise unnecessary under the circumstances, or if the Requesting Party asserts that, following production, certain ESI is not reasonably usable, the Parties shall meet and confer to discuss resolving such assertions. If the Parties cannot resolve any such disputes after such a meet and confer has taken place, the issue shall be presented to the Court for resolution. The following types of data stores are presumed to be inaccessible and are not subject to discovery, and need not be collected or preserved, absent a particularized need for the data as established by the facts and legal issues of the case (e.g., information suggesting that relevant evidence has been lost or is no longer available in other more accessible forms):

1. Deleted, slack, fragmented, or other data only accessible by forensics;
2. Random access memory (RAM) or temporary files; and
3. Server, system, or network logs.

C. Variations or Modifications: Variations from this ESI Protocol may be required. Any practice or procedure set forth herein may be varied by agreement of all affected Plaintiffs and all affected Defendants, which will be confirmed in writing. In the event a Producing Party determines that a variation or modification is appropriate or necessary to facilitate the timely and economical production of documents or ESI, the Producing Party will notify the Requesting Party of the variation or modification. Upon request by the Requesting Party, those Parties will meet and confer to address any issues in a reasonable and timely manner prior to seeking Court intervention. To the extent the Parties cannot resolve the dispute, the Producing Party must seek relief from the Court if it wants to deviate from this ESI Protocol.

D. Good Cause Inability of a Party to Meet the Deadlines Imposed in this Order: It is expected that the Parties shall make their best efforts to complete the above steps in a reasonable and efficient manner.

The Parties understand that technical (or other) issues or unanticipated volumes may interfere with a Party's best efforts to comply. Should a Party anticipate that for good cause it may be unable to meet a deadline ultimately agreed between the Parties or ordered by the Court, that Party shall promptly raise the issue with the other Parties, explain the reason for the inability to timely comply, and negotiate a reasonable extension for compliance. If the Parties are unable to immediately agree upon a revised deadline for compliance, they shall promptly raise the issue with the Court for resolution. This provision shall not be construed as blanket permission for a Party to modify or extend the ultimate deadlines agreed to by the Parties or ordered by the Court without good cause but rather to recognize that when dealing with search and review of large volumes of ESI, there are sometimes legitimate, unanticipated challenges that may interfere with a Party's best efforts to fulfill its obligations and therefore, to afford the Parties reasonable flexibility and mutual accommodation should such eventuality occur.

It is so ordered.



UNITED STATES DISTRICT JUDGE
MATTHEW L. GARCIA

Appendix 1: ESI Metadata and Coding Fields

| Field Name ¹ | Populated For (Email, Edoc, Calendar, Contact Cellphone, Call Records, Chats, Zooms, or All)) | Field Description |
|--|--|---|
| BegBates | All | Control Numbers. |
| EndBates | All | Control Numbers. |
| BegAttach | All | Control Numbers (First production Bates number of the first document of the family). |
| Attachnames | Email, Edoc | Names of each individual attachment, separated by semicolons. Identifies the file names of all attachments to an email or other document (if present/applicable). |
| EndAttach | All | Control Numbers (Last production Bates number of the last document of the family). |
| Custodian | All | Custodian name (ex. John Doe). |
| DupCust, CustodianOther, or CustodianAll | All | All custodians who were in possession of a de-duplicated document besides the individual identified in the “Custodian” field. |
| LogicalPath | All ESI Items | The directory structure of the original file(s). Any container name is included in the path. |
| Hash Value | All | The MD5 or SHA-1 hash value. |
| NativeFile | All | Native File Link (filename of native file) |
| Email Thread ID | Email | Unique identification number that permits threading of email conversations. For instance, unique MS Outlook identification number (“PR_CONVERSATION_INDEX”) is 22 bytes in length, followed by zero or more child blocks each 5 bytes in length, that facilitates use of email threading. |
| Thread Index | Email | Message header identifier, distinct from “PR_Conversation_Index”, that permits threading of email chains in review software. |

¹ Field Names can vary from system to system and even between different versions of systems. Thus, Parties are to be guided by the Field Names and Field Descriptions when identifying the metadata fields to be produced for a given document pursuant to this ESI protocol. To the extent that a Party does not produce metadata for one of these field names, the Parties will meet and confer in good faith about the metadata that the Parties do possess and the extent to which other metadata information provides the substantive information for the Field Name metadata that is not provided.

| Field Name ¹ | Populated For (Email, Edoc, Calendar, Contact Cellphone, Call Records, Chats, Zooms, or All)) | Field Description |
|----------------------------|--|--|
| EmailSubject | Email | Subject line of email. |
| DateSent | Email | Date email was sent. |
| TimeSent | Email | Time email was sent. |
| TimeZoneUsed | All | Time zone used to process data during document collection and processing. |
| Receive Date | Email | Date Email was received |
| ReceiveTime | Email | Time email was received. |
| To | Email | All recipients that were included on the “To” line of the email. |
| From | Email | The name and email address of the sender of the email. |
| CC | Email | All recipients that were included on the “CC” line of the email. |
| BCC | Email | All recipients that were included on the “BCC” line of the email. |
| DateCreated | Edoc | Date the document was created. |
| LastModified or DateMod | Email or Edoc | Last modified date in MM/dd/yyyy, HH:mm:ss, Z Format |
| FileName | Email, Edoc | File name of the edoc or subject line of an email. |
| Title | Edoc | Any value populated in the Title field of the document properties. |
| Subject | Edoc | Any value populated in the Subject field of the document properties. |
| Author | Edoc | Any value populated in the Author field of the document properties. |
| ModifiedBy | Edoc | Name of person(s) who modified the document |
| DocExt | All | File extension of the document. |
| DocType | All | Document type (e.g., Excel) |
| TextPath | All | Relative path to the document level text file. |
| Redacted | All | “X,” “Y,” “Yes,” and “True” are all acceptable indicators that the document is redacted. Otherwise, blank. |
| MessageID | Email | Unique message id from internet headers |
| Withheld Placeholder | All | To the extent a document is fully withheld (on the basis of privilege or otherwise), this field must be populated with a “Y.” See also ¶ II(M) above. |
| Privilege Asserted | All | To the extent a document has been withheld on the basis of privilege or redacted on the basis of privilege, the text pertaining to such assertion of privilege shall be included as a metadata field (e.g., “Redacted – Attorney Client Privileged” or “Withheld – Attorney Client Privileged”). |

| Field Name¹ | Populated For (Email, Edoc, Calendar, Contact Cellphone, Call Records, Chats, Zooms, or All)) | Field Description |
|-------------------------------|---|---|
| Paper | All | “Y” if document is scanned from hard copy in connection with the collection and production of documents in this matter. |
| Legend/Confidentiality | All | Indicates if document has been designated as “Confidential” or “Highly Confidential” under the Protective Order. |
| Attachment Count | Email, Edoc | Identifies the number of attachments to an email (if present/applicable). |
| Calendar Date Begin | Calendar | Identifies the begin date of a calendar entry (if present). |
| Calendar Date End | Calendar | Identifies the end date of a calendar entry (if present). |
| Calendar Time Begin | Calendar | Identifies the begin time of a calendar entry (if present). |
| Calendar Time End | Calendar | Identifies the end time of a calendar entry (if present). |
| Production Volume | All | Identifies the unique production volume ID of the delivery (ABC001). |
| Page Count | All | Indicates the number of pages within the document |
| Is Embedded | All | Descriptor documents that are embedded in another document (<yes> or <no>) |